REMARKS

Claims 1– 20 are pending in the application.

Claims 1-14, 16, 17, 19, and 20 have been rejected under 35 USC 102(e) as being anticipated by Bottorff et al (US Patent 2001.0014104 A1).

Claims 15 and 18 are objected to as being dependent upon a rejected base claim, but deemed allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Claims 1, 8, 14, 17, 19, and 20 have been amended to overcome Examiner's 35 USC 102(e) rejections. Claims 15 and 18 have been rewritten in independent form.

Rejections under 35 USC 102(e)

Claims 1-14, 16, 17, 19, and 20 have been rejected under 35 USC 102(e) as being anticipated by Bottorff et al (US Patent 2001.0014104 A1).

Regarding data compression independent claims 1, 14, and 19

Referring to independent claims 1, 14 and 19, the Examiner has stated, in paragraph 2 of the Office action, that Bottorff teaches every aspect of applicants' claims. First we assume that Bottorff, as Examiner has recited, is performing the same "data stream compression" function and producing comparable results as our independent claims 1, 14, and 19. As will be discussed below however, Bottorff accomplishes his "data stream compression" function in a significantly different way..

As referenced by Examiner, Bottorff's Fig. 6 and associated description at paragraph [0045], lines 4-15, describes a compression technique that

(1) eliminates inter-frame gaps **64** which normally separate MAC packets **66**, and

(2) to achieve further compression, idle MAC packets **66** in which the data field **70** is empty are also eliminated (as determined by Length=0 in the Length field **68**).

In comparison to Bottorff, as now clearly recited in our amended claim 1, lines 6-7; claim 14, lines 8-9; and claim 19, line 14, we do not eliminate the gap from our second (compressed) data stream. Support for this aspect of our invention is shown in our Fig. 1A (see uncompressed data packet 108 and gap 109 and compressed data packet 112 and gap 113) and is described at page 6, lines 19-21, 25-29. Thus, rather than eliminating the gap in the compressed data stream to reduce the data rate, instead we reduce the data rate by reducing the length of the gap and/or the data packet.

Secondly, unlike Bottorff, we never look at any Length field **68** of the data packet to determine if we should drop a complete data packet. Rather, in accordance with our invention, our controller (102 of Fig. 1) has pre-knowledge and knows for a given type of first type of data stream (uncompressed data stream) what "non-unique, invariant content" can be eliminated from the data packet. Support for this aspect of our invention is described at page 5, lines 15-17 and page 6, lines 3-5 and 21-25. Thus unlike Bottorff, our control unit (102 of Fig.1A) is programmed to know where and what "non-unique, invariant content" are to be eliminated without having to look at the content of the data itself (e.g., the Length field **68**). This aspect has been added to claim 1, lines 10-12; claim 14, lines 12-14; and claim 19, lines 8-9.

Thirdly, Bottorff's technique describes first removing the inter-frame gaps **64** and if further compression is needed then removing the complete idle MAC packets **66**. In comparison, as recited in our amended claims 1, lines 15-16; claim 14, lines 17-18; and claim 19, lines 11-12, we remove non-unique, invariant

content from either a data packet or gap of one or more data entities. Support for this aspect of our invention is described at page 5, lines 11-17.

Thus, even if we assume Bottorff did the same function and produced the same results, for the above-described three reasons Bottorff clearly performs the data compression function in a significantly different manner than what is now recited in amended claims 1, 14, and 19. Consequently, Bottorff cannot be said to anticipate claims 1, 14, and 19 under 35 USC 102(e). Moreover in Bottorff, since there is no recognition, suggestion, or hint that a control unit can be preprogrammed to identify "non-unique, invariant content" which then can be eliminated from the data packet or gap of an uncompressed data stream and thereby produce compressed data stream at a reduce data rate—Bottorff does not make obvious claims 1, 14, and 19 under 35 USC 103(a). Thus, amended claims 1, 14, and 19 should now be allowable over Bottorff under 35 USC 102(e) and/or 35USC 103(a).

Regarding the dependent claims of independent claims 1 and 14

Dependent Claims 2-8 have been rejected under 35 USC 102(e) as being anticipated by Bottorff. As discussed above, since independent claim 1 should now be allowable over Bottorff under 35 USC 102(e) and 103, so should dependent claims 2-8 be allowable for the same reasons as independent claim 1.

Additionally, dependent claim 16 has been rejected under 35 USC 102(e) as being anticipated by Bottorff. Since independent claim 14 should now be allowable over Bottorff under 35 USC 102(e) and 103, so should dependent claim 16 be allowable for the same reasons as independent claim 14.

Regarding data expansion independent claims 8, 17, and 20

Referring to data expansion independent claims 8, 17 and 20, the Examiner has stated, in the last paragraph of page 4 of the Office action, that Bottorff teaches every aspect of applicants' data expansion claims. (Note Examiner rejection had erroneously included data compression dependent claims 7 and 8 as part of this data expansion rejection. The rejection of dependent claims 7 and 8 were addressed in the previous section.)

First we assume as Examiner has stated, that Bottorff performs the same "data stream expansion" function and produces comparable results to our independent claims 8, 17 and 20. As will be discussed below however, Bottorff accomplishes his "data stream expansion" function in a significantly different way than the data expansion function recited in our amended independent claims 8, 17 and 20. In Bottorff, on page 5, paragraph [0047], lines 1-5, it states that both compression and decompression can be "accomplished by examining the length field **68** of the preamble of each MAC packet 66." (Underlining added) As described in paragraph [0047], lines 11-24, PCS **42** receives the compressed data stream and reinserts the idle data packet frames and inter-frame gaps between successive MAC packets 66 (using the length field **68** to properly position the gaps), and thereby regenerate the decompressed data stream.

As previously discussed, unlike Bottorff we never look at any Length field **68** of the compressed data packet to determine if we should add "non-unique, invariant content" to the gap or data packet of the compressed data stream to regenerate the original decompressed data stream. Rather, in accordance with our invention, our controller (102 of Fig. 1) has pre-knowledge and knows the "non-unique, invariant content" that must be added to the gap or data packet of the compressed data stream to regenerate the original decompressed data stream. This aspect of our invention is described at page 7, lines 18-22. Thus, unlike Bottorff our control unit 122 is programmed to know where and what "non-unique, invariant content" are to be added to the compressed data stream without having to look at the content of the data packet itself (e.g., the Length field **68** ). This

aspect has been added to claim 8, lines 10-12; claim 17, lines 16-18; and claim 20, line 7.

Secondly, Bottorff uses a compressed data steam that includes a data packet but no gap. In contrast, as now clearly recited in our amended claims 8, lines 6-7; claim 17, lines 8-9; and claim 20, line 14, our compressed data stream always includes a data packet and a gap. Thus unlike Bottorff, our control unit 122 is programmed to know where and what "non-unique, invariant content" are to be added to a data packet 112 and/or a gap 113 of the compressed data stream to regenerate the original decompressed data stream.

In summary, even if we assume that Bottorff's data decompression technique did the same function and produced the same results, for the above-described two reasons Bottorff clearly performs the data decompression function in a significantly different manner than what is now recited in amended claims 8, 17, and 20. Consequently, Bottorff cannot be said to anticipate claims 8, 17, and 20 under 35 USC 102(e). Moreover in Bottorff, since there is no recognition, suggestion, or hint that a controller can be preprogrammed to identify what and where "non-unique, invariant content" should be added to the data packet or gap of a compressed data stream and thereby produce the original uncompressed data stream—Bottorff does not make obvious claims 8, 17, and 20 under 35USC 103(a). Thus, amended claims 8, 17, and 20 should now be allowable over Bottorff under 35 USC 102(e) and/or 35USC 103(a).

Regarding the dependent claims of independent claim 8

Dependent Claims 9-13 have been rejected under 35 USC 102(e) as being anticipated by Bottorff. As discussed above, since independent claim 8 should now be allowable over Bottorff under 35 USC 102(e) and 103, so should dependent claims 9-13 for the same reasons as independent claim 8.

Allowable subject matter

Applicants are appreciative that Examiner has indicated that claims 15 and 18 are allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Claims 15 and 18 have been rewritten in independent form and as rewritten should now be allowed.

Additional prior Art

The additional prior art made of record and not relied upon has been noted.

SUMMARY

In summary for the above reasons, independent claims 1, 8, 14, 15, and 17 - 20 and their respective dependent claims 2-7, 9-13 and 16 should now be allowable under 35 USC 102(e), and 103 and the same is respectfully requested.

If there is any remaining issue, applicant's attorney would welcome a call from the Examiner to resolve such issue.

Respectfully,

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